

**WHAT IS CLAIMED IS:**

1. A method of identifying fault conditions in an automation system,  
comprising the steps of:

5 identifying components in the system,  
identifying inputs and outputs to each identified component, the  
inputs including possible fault conditions and other inputs,  
determining functional relationships between the inputs and  
outputs for each identified component, and  
10 determining fault conditions based on the functional  
relationships and the outputs and other inputs.

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